

Claims

[c1] What is claimed is:

1.A roaming local area network (LAN), comprising:
a first Internet Protocol (IP) sharing device for sharing connection to a first dynamic IP address;
a first group of network devices connected to the first IP sharing device;
a second IP sharing device for sharing connection to a second dynamic IP address;
a second group of network devices connected to the second IP sharing device, wherein each network device in the first and second groups of network devices has a unique virtual IP address; and
a host connected to the Internet through a static IP address, the host capable of controlling data traffic between the first group of network devices and the second group of network devices.

[c2] 2.The roaming LAN of claim 1 wherein a first network device in the first group of network devices is a telephone.

[c3] 3.The roaming LAN of claim 2 wherein a second network device in the first group of network devices is directly

connected to the telephone for establishing a connection to the LAN through the telephone.

- [c4] 4.The roaming LAN of claim 3 wherein the telephone comprises an RJ45 connector for connecting to the second device through a network cable according to the IEEE 802.3 protocol.
- [c5] 5.The roaming LAN of claim 2 wherein the second device is a computer.
- [c6] 6.The roaming LAN of claim 2 wherein the first IP sharing device comprises a switch or hub for sharing the first dynamic IP address with the first group of network devices.
- [c7] 7.The roaming LAN of claim 6 wherein the telephone comprises an RJ12 connector for connecting the telephone to the first IP sharing device through a network cable according to the IEEE 802.3 protocol.
- [c8] 8.The roaming LAN of claim 2 wherein the first IP sharing device is connected to an access point for wirelessly sharing the first dynamic IP address with the first group of network devices.
- [c9] 9.The roaming LAN of claim 8 wherein the telephone communicates with the access point according to an IEEE

802.11x protocol.

- [c10] 10.The roaming LAN of claim 9 wherein the telephone comprises a connector selected from a group consisting of a PCMCIA slot, a USB connector, a CardBus slot, a mini-PCI slot, and a PCI slot for receiving a PCMCIA 802.11x card.
- [c11] 11.The roaming LAN of claim 2 wherein the host comprises a network private branch exchange (PBX) for providing telephone service to the telephone.
- [c12] 12.The roaming LAN of claim 11 wherein the host further comprises a server connected to the network PBX for controlling data traffic in the roaming LAN.